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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,198	02/10/2005	Petrus Johannes Maria Nuijten	I-2002.013 US	3848
31846 7590 07/03/2007 INTERVET INC. PATENT DEPARTMENT PO BOX 318 MILLSBORO, DE 19966-0318			EXAMINER SHAHNAN SHAH, KHATOL S	
			ART UNIT 1645	PAPER NUMBER
			MAIL DATE 07/03/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/524,198

Applicant(s)

NUIJTEN ET AL.

Examiner

Khatol S. Shahnan-Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-10 and 13-20 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

**DETAILED ACTION**

1. Applicants amendments of 02/10/2005 are acknowledged. Claims 11 and 12 have been canceled. Claims 1-6, 9-10 and 13-20 have been amended.
2. Claims 1-10 and 13-20 are pending and under consideration.

**Restrictions**

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-6 are drawn to DNA, carrier and host cell.

Group II, claim(s) 7-12 are drawn to proteins.

Group III, claim(s) 13-18 are drawn to vaccines.

Group IV, claim(s) 19 is drawn to a method of producing a vaccine.

Group V, claim(s) 20 is drawn to a kit.

4. The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature-linking groups I-V appears to a nucleic acid sequence encoding a 22.5 kD *Streptococcus uberis* protein.

However, Jayarao et al. (Journal of Clinical Microbiology, Vol. 30, No. 5, pp. 1347-1350, May 1992) teach total DNA sequence of *Streptococcus uberis* encoding numerous proteins from 2 kD to 23.1 kD (see abstract, page 1347 and figure 2). Jayarao et al. teach total DNA or genomic sequence of *Streptococcus uberis* (see abstract). Since applicants' SEQ ID NO: 1 is also a DNA sequence of *Streptococcus uberis*. Therefore, the nucleic acid sequence encoding a 22.5 kD *Streptococcus uberis* protein will be inherent in the DNA and proteins taught by Jayarao et al. Therefore, the technical feature linking the inventions of

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groups I-V does not constitute a special technical feature as defined by the PCT Rule 13.2, as it does not define a contribution over the prior art. As set forth above, each of group I-V has a special technical feature that is not required for the other groups.

The special technical feature of group I is a DNA sequence

The special technical feature of group II is a protein

The special technical feature of group III is a vaccine.

The special technical feature of group IV is a method of producing a vaccine.

The special technical feature of group V is a diagnostic kit.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Species Election***

6. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

a- If applicants elect group I, then there is additional election of species.

1a. please choose one of the species (% homology) from claims 1 or 2.

b- If applicants elect group II, then there is additional election of species.

1b. Please choose one of the species (% homology) from claims 7 or 8.

c- If applicants elect group II, then there is additional election of species.

1c. Please choose one of the species (vaccine) from claims 13, 14 or 15

If applicants elect species of claim 13, there would a subspecies election.

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1cc. Please elect one single species of organism from claim 18.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

The species are shown to be distinct because they are drawn to a plurality of disclosed patentably distinct genes or sequences comprising structurally and functionally distinct molecules.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following claim(s) is generic: 1, 14 and 26.

### ***Conclusion***

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khatol Shahnan-Shah whose telephone number is 571-272-0863. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Siew can be reached on 571-272-0787.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Khatol Shahnan-Shah . B.S.,  
Pharm, M.S.

Biotechnology Patent Examiner  
Art Unit 1645

June 23, 2007



LARRY R. HELMS, PH.D.  
SUPERVISORY PATENT EXAMINER